

Historic, archived document

Do not assume content reflects current
scientific knowledge, policies, or practices.

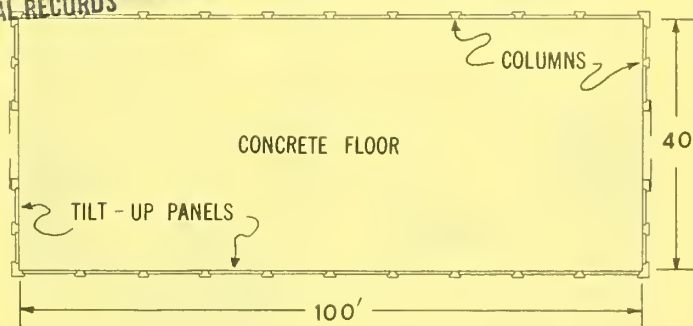
Grain Storage Building ...tilt-up concrete construction



U. S. DEPT. OF AGRICULTURE
NATIONAL AGRICULTURAL LIBRARY

JAN 19 1970

CURRENT SERIAL RECORDS



This reinforced concrete building is intended for the bulk storage of small grain or shelled corn on the farm. It has a capacity of about 40,000 bushels.

The building was developed at the University of Nebraska, in cooperation with the Portland Cement Association.

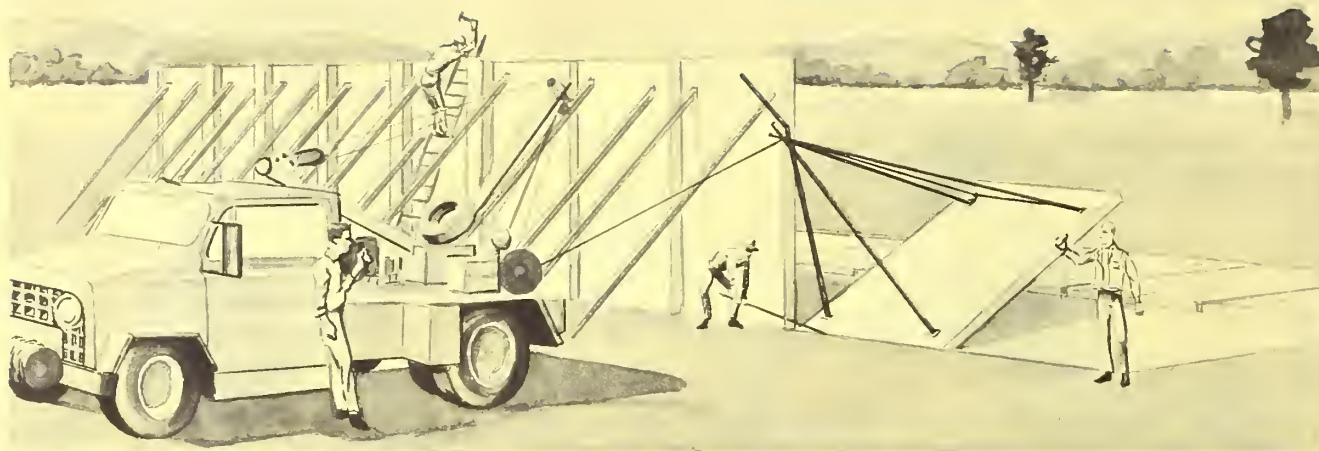
In the tilt-up method of construction the foundation and the floor slab are first cast in place, and when cured, the wall panels are cast flat, in simple edge forms, on top of the slab. When the wall panels have cured, the forms are removed and the panels are tilted erect and secured in their final positions. Although the working drawings do not include details of construction procedures, many farm building contractors are experienced in this method of constructing concrete buildings.

Clear span trusses are used to support the roof, leaving the interior of the building entirely free of obstructions. The trusses are spaced 10 feet on centers and are designed to support a total load of up to 30 pounds per square foot.

When not needed for storing grain, the building may be used for other purposes, such as hay or machinery storage.

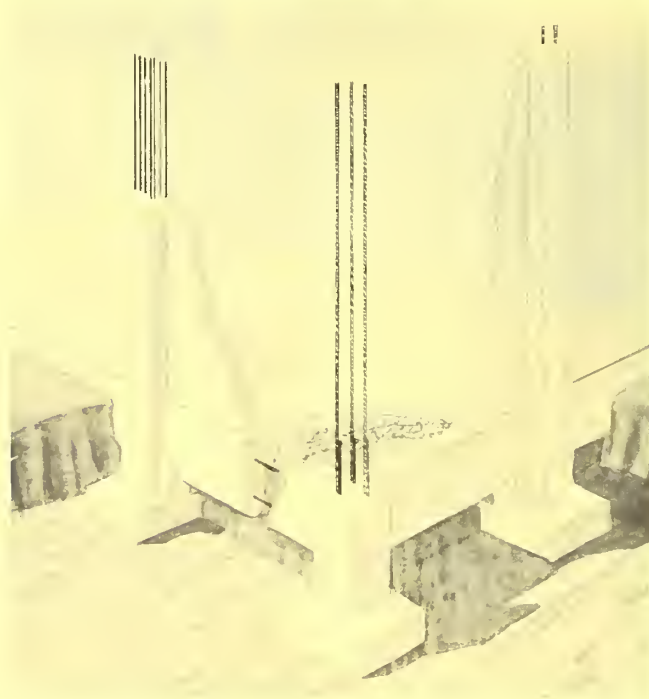
A large-scale working drawing may be obtained from the extension agricultural engineer at your State university. There may be a small charge to cover cost of printing.

If you do not know the location of your State university, send your request to Agricultural Engineer, Federal Extension Service, U.S. Department of Agriculture, Washington, D.C. 20250. He will forward your request to the correct university. ORDER PLAN NO. 6059, GRAIN STORAGE BUILDING, Tilt-up Concrete Construction.



TILTING UP WALL PANEL

The drawing above illustrates the use of a tilting-frame which permits erection of the wall panels by a truck-mounted winch or a farm tractor. After erection, the panels are alined, braced temporarily, and concrete columns are cast in place to join and support them.



CUTAWAY VIEW

The working drawings offer a choice of two types of foundations for this building. One is a continuous cast concrete wall. The other, as shown in the cutaway view above, consists of spaced footings and piers with a reinforced grade beam between them. Note that the bottom of the grade beam is rounded to minimize the possibility of heaving due to frost action and that the footings are spaced so that the wall columns may be cast as a continuation of the piers.



**PERSPECTIVE SHOWING
VENTILATOR AND DOORS**

